Energy Policy Update

Energy and Environmental News

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ARIZONA

2 Shuttered Snowflake Power Plants Purchased

[Associated Press, July 30] PHOENIX – Two shuttered power plants near the small eastern Arizona town of Snowflake have been purchased by a company controlled by Arizona state Sen. Bob Worsley, sending an economic lifeline to the town hurt by the job losses associated with the shutdowns. The 24-megawatt Snowflake Power Plant will employ 35 workers and will be producing power by early next week, Worsley said Tuesday. Another 65 workers will be needed to supply the forest products that the biomass plant burns. The connected 80-megawatt coal-fired plant will either be converted to natural gas or get new low-emission technology before restarting.

Arizona Gas Prices Slip but Volatility Lies Ahead

Gas prices slip but volatility lies ahead

[Az Daily Star, Aug. 2] After a two-week price surge, Arizona fuel prices have switched gears, although it's uncertain how long this relief will last, according to AAA Arizona. This week, the statewide average shed nearly 3 cents to $3.54 per gallon of regular gas on Friday. Nationally, prices dropped about 2 cents in the past week, to $3.63 per gallon. Tucson kept the state's lowest average price at $3.39 per gallon, down about 2 cents from last week. Flagstaff had the highest average price in the state, at $3.74. High crude prices, the possibility of refinery glitches or supply disruptions from Gulf Coast hurricanes and an end of the summer spike in demand could push prices higher this month, AAA said.

Company's Solar Leases Draw Fans, But Feds Open Inquiry Into Pricing

SolarCity denies inflating the value of its systems

Solar panels are a lot more affordable if you rent them rather than buy them. California-based SolarCity Corp. capitalized on that fact to become the darling of the renewable-energy industry and the major provider of rooftop solar in metro Phoenix. Its strategy to offer solar leases or similar financial arrangements has helped deploy thousands of rooftop solar arrays to those who otherwise could not pay the big up-front costs, which can run $20,000 to $30,000 before incentives for the average home. The company also pushed for agreements that allow tax-exempt organizations to use solar. Some of SolarCity's high-profile clients in the state include a community at Davis-Monthan Air Force Base and National Bank of Arizona. SolarCity also plays a central role in the debate over rooftop solar in Arizona and how much credit solar customers should get for the electricity they send to the power grid. The company helped form a group called T.U.S.K., which stands for Tell Utilities Solar won't be Killed and targets the five Republican regulators on the Arizona Corporation Commission who will decide the issue this year. Although SolarCity's business has been growing, a federal investigation has cast at least a small cloud over the company. An *Arizona Republic* analysis of the company's financing arrangements shows they might be costing the federal government more than most solar arrays in the way of tax credits. But SolarCity officials say they are helping achieve the goals of the tax credits, which are to deploy more rooftop solar and help the industry eventually compete with traditional electricity sources without subsidies

County Supervisors Protest BLM's SunZia Route

[San Pedro Valley News-Sun, July 30] The Cochise County Board of Supervisors agreed to submit a letter of protest of the route selected by the U.S. Bureau of Land Management that permits SunZia Southwest Transmission, LLC., to install two parallel power lines that will run through the northwest corner of the county and the Lower San Pedro River Valley. Supervisor Ann English, chair of the board of supervisors, explained that the county had to have its notice of protest filed by July 15 and to meet that deadline, she submitted a letter to the BLM. Now she needed the approval of Supervisors Pat Call and Richard Searle, which they gave. Last year, the supervisors requested the BLM use another route through Graham County, to minimize impacts to sensitive rural communities, disturbance to cultural or paleontological areas, as well as impacts to the fragile riparian habitat along the San Pedro River. The letter approved during the July 23 Tuesday states: "In addition, we expressed our concerns related to the Buffalo Soldier Electronic Range, protected by Arizona Senate Bill 1387. The test range relies on an extremely quiet electro-magnetic spectrum for missions of Fort Huachuca in testing electronic equipment vital to military missions and the protection of military personnel in theater." The range is situated within unique mountain topography that eliminates emissions that could affect the Fort's work. The BLM accommodated the White Sands Missile Range in New Mexico, but not Fort Huachuca. English pointed out to the BLM that the additional costs of the extra 28.2 mile stretch would increase the cost of the project and therefore would cause an increase in utility bills for end users. She also emphasized that the BLM recognizes that the new lines would reduce land values by 10 percent or less.

Federal and State Subsidy Debate Key to Arizona's Solar Future

At issue: Tax credits, other incentives for industry, customers

[Az Republic, July 30] Subsidy" and "incentive" are fighting words in Arizona's intense debate over solar power, with emotions riding high over how much help, if any, the solar industry should get. The state's fledgling solar economy is beginning to take root, but it can't yet stand on its own without support from the federal government, states and utilities. Solar supporters say that the industry won't need subsidies forever but that incentives such as the 30 percent tax credit on the price of solar panels are essential to get it established and competing with traditional power sources. In addition to the tax credits, utilities give homeowners with rooftop solar panels full retail credit for the electricity they send to the grid. However, utilities want to cut that credit because they say it is more expensive than buying power on the market from power plants. Homeowners with solar — or those considering adding the panels — don't want the payments for power they contribute to the utility grid to drop. Arizona Public Service Co. and other utilities say the growing number of solar customers can put an unfair burden on customers without solar, who tend to be less well off than solar users. That's because the solar customers who receive credits for selling power back to the grid don't pay as much as non-solar customers to maintain the grid. Other solar opponents contend that tax credits and incentive programs for homeowners with solar are bound to distort the market and create an unequal playing field for energy sources such as natural gas and nuclear power.

Gosar Defends Solar Tax Incentives

'All of the above'policy on energy needed, he says

[Az Republic, July 29] FLORENCE — U.S. Rep. Paul Gosar mopped his brow as he strolled past a line of upturned solar cells baking in the afternoon sun. The Republican congressman, a proponent of shrinking government spending, was nonetheless touting the benefits of federal tax incentives for renewable energy. "I've always been and always will be a person that believes in an 'all of the above' energy policy," Gosar said. "We have to look at all our energy policies so that we're utilizing the best of solar, the best of geothermal, the best of wind, but also our carbon-based fuels." Gosar visited the solar plant on a four-day tour of his congressional district. It stretches from the Nevada line to Yuma to part of Pinal County, a swath larger than South Carolina. The congressman flew by helicopter to the project about an hour's drive south of Phoenix, passing housing subdivisions bordered by alfalfa fields. Copper Crossing, built three years ago by the Spanish energy company Iberdrola Renewables, generates power for up to 3,700 homes near Florence. GOP leaders have encouraged members to tour energy facilities at home, among other photo-worthy destinations, over the next few weeks and avoid chatting too much about the immigration debate. As Gosar walked through the solar field, Iberdrola officials told him they worried Congress would cut tax credits for solar-plant construction, as lawmakers in Washington gear up for what could be a major tax overhaul this fall. The incentives helped Iberdrola build Copper Crossing, officials said. The company also received $25 million from a federal economic-stimulus grant. "The two things we need the most in our business are stability and parity," said Art Sasse, Iberdrola spokesman. "By that, I'm talking about parity with all energy sectors." Gosar said he supports granting solar companies tax incentives, similar to those given to oil and gas companies. He promised that if GOP lawmakers cut solar tax credits in their reform legislation, he won't support it unless every other energy sector loses tax incentives as well. Gosar, a Prescott Republican, defended the tax credits as a way to encourage renewable-energy production while still allowing the market to work. He said tax incentives are more fair and transparent than the government grants given to companies like Solyndra, which went belly up in recent years. "(Tax credits) are not picking winners and losers," he said. Later in the day, speaking to a half-dozen high-powered executives at the headquarters of the Arizona Mining Association, Gosar made an unusual pitch: Mining companies should partner with renewable-energy companies like Iberdrola to promote their products.

Navajo President OKs Lease Extension for Power Plant Near Page

[Associated Press, July 31] WINDOW ROCK — Navajo President Ben Shelly has approved a lease extension for a coal-fired power plant on the reservation that will allow it to keep operating until 2044. Shelly signed the measure Tuesday, saying the Navajo Generating Station has long been a source of jobs and revenue for the tribe. The agreement between the tribe and the owners of the power plant near Page boosts yearly payments to the Navajo Nation from $3 million to $43 million. The electricity generated by the plant delivers water to Arizona's most populated areas through a series of canals. It also ensures that water rights settlements with American Indian tribes are met.

Solar Racers Make A Pit Stop in The Gila Valley

[Eastern Arizona Courier, July 31] THATCHER — A sun-generated auto race crept through the Gila Valley on Saturday. Twelve teams of high school students are pitting their solar powered automobile inventions in a race across the desert Southwest, from Texas to Los Angeles, and the teams made a rest stop at Eastern Arizona College on Saturday. It's not about building the cars," said event director Dr. Lehman Marks. "It's about the students doing problem solving under difficult situations. It's about the life experience." Teams represented high schools in California, Michigan, Mississippi, New York, Pennsylvania and Texas. One by one, the cars and their support teams pulled onto the campus of Eastern Arizona College in front of the Lee Little Theater to take a mandatory lunch stop and then to trailer their sun-powered cars for the trip over the mountain range in the Globe area. At Superior, the teams dropped back into the racing machines and headed for Florence for the scheduled overnight stop on their journey. Future scientists, engineers, mechanics and more spend about two years on the project, which culminates in the race.

ALTERNATIVE ENERGY AND EFFICIENCY

Benefits to Consumers Turn Out To Be Much Higher

[ACEEE website, July 30] Washington, D.C. – A new report released today by the American Council for an

Energy-Efficient Economy (ACEEE) and the Appliance Standards Awareness Project (ASAP) finds that the U.S. Department of Energy (DOE) has been overestimating the impact that energy efficiency standards for appliances and other products have on their price tags. "Based on market data, the prices of many appliances have gone down even as new efficiency standards have taken effect," said the lead author of the report and ACEEE Executive Director Steven Nadel. "Even when prices have gone up some, the increase is far lower than DOE estimated." When appliance standards are developed, DOE estimates net savings for consumers by taking into account utility bill savings and cost impacts, primarily price increases to make appliances more efficient. DOE only sets standards that it finds are cost-effective for consumers. Today's study, entitled *Appliance Standards: Comparing Predicted and Observed Prices,* looks at nine appliance standards that took effect over the 1998-2010 period and found that DOE overestimated price impacts in every case, usually by a wide margin. ACEEE and ASAP found that across the nine rulemakings, DOE estimated an average increase in manufacturer's selling price of $148. On average the actual change in price was a *decrease* in manufacturer's selling price of $12. Estimates of the overall benefits of energy efficiency standards for consumers will likely have to be revised as well. In 2012, ACEEE and ASAP released a study estimating that standards for appliances and other equipment would save consumers more than $1 trillion cumulatively by 2035, even after subtracting estimated increases in product prices.

Energy Efficiency Market 'Hard to Reach' in Multi-Tenant Buildings

[Energy Manager Today, Aug. 2] Over recent years, financing for energy efficiency investments has been widely viewed as a promising solution to reducing upfront cost barriers to investment in energy efficiency. But several markets, including multi-tenant commercial office and multi-family, remain stubbornly hard to reach, according to research by the American Council for a Energy Efficient Economy. According to Financing for Multi-Tenant Building Efficiency: Why This Market is Underserved and What Can Be Done to Reach It commercial buildings currently represent about 18 percent of the total primary energy consumption in the United States. Some 60 percent of office buildings were built before 1980 and many are in need of upgrades due to aging building equipment and systems. So, there is a great deal of potential to install energy efficient, cost-effective systems in office buildings that would reduce monthly utility bills, the ACEEE says. Often buildings that could benefit the most from energy efficiency upgrades face the steepest barriers to adoption, ACEE says. Evidence suggests that Class B and C commercial office buildings, which typically are older buildings with fewer amenities (particularly those not professionally managed) can sometimes be at a significant disadvantage when it comes to accessing upfront capital for energy efficiency retrofits compared to Class A buildings, ACEEE says.

Florida Project Produces Nation's First Cellulosic Ethanol at Commercial-Scale

[U.S. Dept. of Energy, August 1] WASHINGTON – The Energy Department today recognized the nation's first commercial-scale cellulosic ethanol production at INEOS Bio's Indian River BioEnergy Center in Vero Beach, Florida. Developed through a joint venture between INEOS Bio and New Planet Energy, the project uses a unique hybrid of gasification and fermentation technology – originally developed with Energy Department support starting in the 1990's – to convert wood scraps, grass clippings and other waste materials into transportation fuels as well as energy for heat and power. "Unlocking the potential for the responsible development of all of America's rich energy resources is a critical part of our all-of-the-above energy strategy," said Energy Secretary Ernest Moniz. "Today's announcement of commercial-scale cellulosic production represents an important benchmark for American leadership in this growing global industry. It also demonstrates the need for early-stage investment in innovative technologies that will help diversify our energy portfolio, reduce carbon pollution and lead to tomorrow's energy breakthroughs." As the President's Climate Action Plan made clear, biofuels have an important role to play in increasing our energy security, fostering rural economic development and reducing greenhouse gas emissions from the transportation sector. The Energy Department's research and development efforts are helping to bring innovative, cost-cutting biofuel technologies on line, test the latest engineering advancements and accelerate commercial production. The Indian River County BioEnergy Center (Center) will have an annual output of eight million gallons of cellulosic ethanol per year from vegetative, yard and municipal solid waste as well as six megawatts of clean, renewable power annually – enough to run the entire facility and provide excess power to the local community.

Ford Adds F-150 Pickup to Natural Gas Lineup

[Associated Press, July 31] Ford is expanding its lineup of vehicles for buyers who want to run on clean

natural gas to include its bestseller, the F-150 pickup. The automaker says adding the 2014 F-150 will make it the only maker with a full-size pickup that can come prepped from the factory for natural gas, then sent to an outfitter. Until now, Ford's natural-gas lineup has included the small Transit Connect and E Series vans, and the big Super Duty pickups and chassis cabs. The lineup underscores how even though natural gas is a domestically produced fuel priced at a fraction of the cost of gasoline -- averaging $2.11 a gallon -- it's still largely commercial buyers and fleets embracing it. Only Honda produces a natural-gas car, a version of the Civic, in limited numbers. Ford officials note, however, that the F-150 with the modified 3.7-liter V-6 engine will be available in natural gas to anyone who wants to buy one. "This is not restricted to commercial fleets only," says Dick Cupka, a product development sustainability manager.

U.S. Biodiesel Production on Pace for Record Year

[Biodiesel Magazine, July 25] Boosted by strong federal policy aimed at diversifying the transportation fuels market, the U.S. biodiesel industry reached a new production record for the first half of the year and is on pace for its best year ever, according to new figures from U.S. EPA. Biodiesel refiners across the country have produced more than 636 million gallons through the end of June, the EPA reported July 25. That puts the industry on pace to break the previous annual biodiesel production record of just under 1.1 billion gallons and to significantly exceed this year's volume requirement under the renewable fuel standard (RFS).

ENERGY/GENERAL

FPL Plans $3.6B Natural-Gas Pipeline

[Orlando Sentinel, July 27] Florida Power & Light Co. launched its quest Friday to build a $3.6 billion pipeline that would likely turn Orlando into the state's most-important natural-gas hub, as part of a strategy to ensure that power plants statewide don't run short of a fuel that's cheaper than coal. The Juno Beach-based electric utility, the state's largest with 4.6 million customers, has pressed for several years to build a third major gas pipeline into Florida. The project now being pursued by FPL and a veteran pipeline partner would include a 465-mile segment from Alabama through Georgia to Orlando. A second section would extend 125 miles from the Orlando hub to an FPL complex near Okeechobee. Florida is second in the nation in terms of its dependence on natural gas for generating electricity; nearly 70 percent of state's power comes from plants running on the fossil fuel. State energy experts fear the two pipelines now in use, both carrying gas from the Gulf of Mexico region, are vulnerable to supply disruptions.

Shale Explorers Outperforming International Oil Titans

[Bloomberg, Aug. 5] Oil explorers focused on high-margin shale drilling from Texas to North Dakota are set to outperform Big Oil this year. EOG Resources Inc. (EOG), Pioneer Natural Resources Co. (PXD) and Continental Resources Inc. are poised to reap bigger returns for investors than energy titans 15 times their market values as they devote almost all their drilling capital to higher-margin, domestic crude wells, said Gianna Bern, founder of Brookshire Advisory and Research Inc. in Chicago. Houston-based EOG is estimated to more than triple profit in 2013 to $1.92 billion. The domestic price rally “is bullish for U.S. shale development and benefits producers with a high U.S. production profile,” Bern, a former BP Plc (BP/) crude trader, said in a telephone interview. U.S. shale “is where the growth is.” West Texas Intermediate, the benchmark crude for onshore U.S. oil, has risen 16 percent this year as new pipelines and rail links eroded a supply glut in the Great Plains. London-traded Brent, the basis for two-thirds of international prices, fell 1.9 percent, undermining major international producers and contributing to second-quarter earnings from Exxon Mobil Corp. (XOM) and Royal Dutch Shell Plc (RDSA) that disappointed investors last week. Exxon and Shell already are lagging behind some of the dominant domestic shale explorers in delivering returns to investors. Pioneer has risen 70 percent this year, while Oklahoma City-based Continental has increased 33 percent. EOG, the biggest owner of drilling rights in the Eagle Ford Shale in southwest Texas, has risen 27 percent.

TransCanada Plans Pipeline to East Coast

[New York Times, Aug. 1] OTTAWA — Faced with uncertainty over its proposed Keystone XL pipeline, which would link Canada’s oil sands with the American Gulf Coast, TransCanada said on Thursday that it would build a pipeline to eastern Canada. The pipeline company announced that it would proceed with a $12 billion pipeline that could move up to 1.1 million barrels a day to New Brunswick, to serve a region that now relies on imported crude oil for the overwhelming majority of its supply. TransCanada announced its decision four days after President Obama, in an interview with The New York Times, dismissed the significance of job claims by

advocates of Keystone XL. In the interview he reiterated his position that approval for that pipeline rests on whether it will add significantly more carbon to the atmosphere.

INDUSTRIES AND TECHNOLOGIES

Cool Energy Wins DOE Grant

[Electric Light & Power, July, 29] Cool Energy, Inc., a clean energy power generation company with headquarters in Boulder, Colorado, won a $1 million Phase II Small Business Innovation Research grant from the U.S. Department of Energy (DOE). This power generation technology this grant supports could replace up to 300 fossil fuel power plants, according to the company. The grant will support a program to demonstrate electricity generation from untapped heat from distributed geothermal sources. The grant will allow Cool Energy to build and test their first 20 kW prototype Stirling engine, the GeoHeart Engine, to generate electricity from co-produced liquids at oil and gas wells.

Mexico's Unprecedented Smart Grid Opportunity

[Fierce Smart Grid, July 31] Mexico is poised to become a major smart grid market over the next decade. Zpryme's research indicates that Mexico's smart grid technology market will grow from $1.23 billion in 2012 to $7.42 billion in 2020, according to research from Zpryme, at a compound annual growth rate (CAGR) of 25 percent and representing an attractive regional opportunity in a large market poised for aggressive investment to modernize their power grid. The 25 percent CAGR indicates that Mexico is poised for a long cycle of sustained growth. This is a healthy environment for centralized planning, and if the levers for investment and policy change can keep pace with the growing need for energy, Mexico will serve as a model for other countries to follow for rapid and environmentally responsible modernization efforts, according to Zpryme. Currently, however, Mexico faces problems such as power outages, electrical theft, and poor energy infrastructure, not unlike many Latin American countries, providing an unprecedented opportunity for Mexico to improve both functionally and economically with smart grid technology. Currently, Mexico's electricity market is federally owned, with the Federal Electricity Commission (Comisión Federal de Electricidad or CFE) essentially controlling the whole sector. This level of control has stifled innovation to date, but Zpryme believes things will change with broader participation coming from the private sector. Private power generation in Mexico is done on a self-supply basis, where players can only generate electricity for their own consumption, and can only sell excess electricity back to CFE. As modernization advances, private power producers will have new opportunities, thus bringing more secondary buyers into the market for smart grid technologies.

New Tools for Keeping the Lights On

[New York Times, July 31] Rensselaer, N.Y. — After the lights went out for 50 million people from the Northeast to the Midwest on Aug. 14, 2003, investigators found readings from two obscure instruments that would have given them an hour's warning — plenty of time to solve the problem if the devices had been wired to provide a stream of critical data. Now, a decade after the largest blackout in American history, engineers are installing and linking 1,000 of those instruments, called phasor measurement units, to try to prevent another catastrophic power failure. When the work is done, the engineers say, they will have a diagnostic tool that makes the old system seem like taking a patient's pulse compared with running a continuous electrocardiogram. Gilbert C. Bindewald III, a program manager at the Energy Department, which has spent about $200 million to encourage their installation, said the instruments were "shedding light on the science that's occurring behind the scenes, within the grid." Phasor measurement units work by measuring the rhythm of current at different points on the power grid. Readings at every point within each of the three North American grids — one covering the eastern two-thirds of North America, one covering the West, and one covering Texas — are supposed to be basically the same. If the measurements differ, it can be a sign of imminent collapse. When the current is flowing properly, phasor measurement units record normal readings — about as exciting as "watching paint dry," in the words of Peter K. Lemme, a senior electrical engineer at the New York Independent System Operator, which runs New York's grid. As Mr. Lemme spoke, he looked at a real-time display of phasor measurement units across the state.

Trillions of Smart Sensors Will Change Life as Apps Have

[Bloomberg, Aug. 4] In February, six students on snowshoes battled as much as 12 feet of snow to penetrate into the heart of the American River basin. Moving through dense forests and meadows, they mounted 90

iPhone-sized machines, designed to measure everything from soil moisture to temperature and relative humidity, onto 16-foot poles that beam data to researchers like Steven Glaser, a professor at the University of California, Berkeley. With additional trips this summer, Glaser hopes to create the world's largest sensor network, comprising 7,500 devices that will inform researchers and government agencies for the first time in detail how much water California has in its coffers -- critical data for farmers and state planners. The network will be among the largest tests of a new kind of sensor: one that feels as well as thinks, while using very little power -- a D-cell battery can last years. Glaser's gadgets come equipped with silicon from Linear Technology Corp. (LLTC) and Cypress Semiconductor Corp. (CY) that turns them into mini-computers. They're part of a generation of intelligent sensors whose sales may rise about 10 percent a year to reach $6.9 billion in 2018, according to Transparency Market Research. Unlike dumb predecessors that gathered data and passed it to a central server to analyze, these devices monitor the information's quality and perform advanced calculations. "It's smart cities, smart buildings, smart water," said Susan Eustis, president of WinterGreen Research Inc. "It's enabling a world of things. It's going to grow unbelievably fast."

LEGISLATION AND REGULATION

A Hankering for Hybrids

[New York Times, Aug. 2] DETROIT – When automakers rolled out their new electric cars three years ago, they had big plans. Even President Obama, in his State of the Union address in 2011, predicted there would be as many as a million of them on the nation's roads by the middle of the decade. Results have, so far, fallen way short of expectations. Only about 36,000 battery-powered vehicles were sold this year through July, according to the auto research site Edmunds.com. And many of those sales were spurred by heavy discounts from car companies desperate to move electric models off the lot. But for hybrid cars, it has been a different story. Automakers have sold about 298,000 hybrids, which alternately run on gasoline engines and battery power, so far this year. And while electric vehicles may be considered greener and more glamorous, hybrids have quietly entered the mainstream of the American auto market. Today, more than 40 conventional hybrid models are available, from mass-market automakers like Toyota and Ford to luxury brands like BMW and Mercedes. Hybrids account for about 3 percent of overall industry sales, with the market-leading Toyota Prius cracking the Top 10 list of best-selling passenger cars. By contrast, automakers offer only about a dozen all-electric cars or plug-in models — which run on battery power with assistance from a gasoline engine — although more are on the way. Industry analysts say that hybrid models are now showing up on the shopping lists of a broad range of consumers.

Congress Passes Legislation to Assist Small Scale Hydropower Development

[National Law Review, Aug. 2] In a summer marked by partisan bickering on Capitol Hill, little noticed energy legislation moved through Congress before the traditional August recess. On August 1, 2013, the Senate approved by unanimous consent H.R. 267, the Hydropower Regulatory Efficiency Act, and H.R. 678, Bureau of Reclamation Small Conduit Hydropower Development and Rural Jobs Act, two bills aimed at relieving some of the regulatory constraints that have impeded the development of small scale hydropower production in recent years. Both bills had sailed through the House of Representatives earlier this year, passing by overwhelming majorities. With this action by the Senate, the bills now head to the President's desk for his approval. In brief, each bill would facilitate the development of small hydropower production. H.R. 267, which was introduced by Congressman McMorris-Rogers (R-WA), changes select **Federal Energy Regulatory Commission** (**FERC**) regulations to make it easier to develop smaller output hydropower stations. FERC issues licenses and regulates hydroelectric facilities under the Federal Power Act. H.R. 267 Act amends the current law to allow FERC to exempt small hydroelectric facilities with a generating capacity of 10 megawatts or less from FERC's licensing requirements. Under current law, only projects of up to 5 MW are exempt. The legislation further allows FERC to exempt from the licensing process small conduit projects (described below) with an installed capacity of 5 MW or less and certain conduit projects with capacity between 5 and 40 MW.

Europe's Biggest Solar Projects Threatened by China Deal

[Bloomberg, July 29] Europe's decision to curb imports of Chinese solar panels threatens to limit the biggest projects using the technology in the 28-nation bloc while having little impact on the manufacturers accused of dumping their products. The agreement to set a minimum price of 56 euro cents ($0.74) a watt for panels until the end of 2015, reached this weekend, will hurt developers of ground-mounted plants and reduce installations, said Bloomberg New Energy Finance, IHS Inc. (IHS) and the U.K. Solar Trade Association.

Developers were already buying Chinese panels cheaper, they said. The EU Commission set preliminary tariffs on the 11 billion euros of imports on June 4, allowing time for a deal in its largest commercial dispute of this kind. The agreement will keep higher antidumping duties from starting on Aug. 6, while preventing an escalation in the trade spat before a definitive decision on the case in December.

WESTERN POWER

Colorado Solar-Energy Groups Oppose Xcel Plan To Trim Credits

[Denver Post, July 30] A coalition of solar-industry and environmental groups Tuesday called upon the Colorado Public Utilities Commission to reject an Xcel Energy proposal they say would curtail rooftop solar installations. Xcel, the state's largest electricity provider, has suggested trimming the "net metering" credit that homeowners and small businesses with solar arrays get for putting electricity on the grid. In a unified statement, 22 trade groups, renewable-energy advocacy groups, environmental groups and solar businesses opposed the idea. "Xcel Energy is trying to squash one of our most successful solar programs," Jeanne Bassett of Environment Colorado said. In its renewable-energy plan filed with the PUC, Xcel said homeowners and businesses with solar arrays receive a 10.5-cent credit for each kilowatt-hour they put on the grid and provide 5 cents in benefits.

Desalination Plant Saves $12M Per Year with Energy Recovery

[Energy Manager Today, Aug. 1] The largest desalination plant in the western hemisphere is being built north of San Diego, and the $1 billion plant will use technology from Energy Recovery to help it reach its carbon neutral goals and reduce its energy costs. The future operator of the Carlsbad Desalination Project, IDE, awarded Energy Recovery a contract for its energy recovery device technology, which will save an estimated 116 million kWh of energy per year, equating to about $12 million per year. Energy Recovery's PX Pressure Exchanger devices work by capturing hydraulic energy from the high-pressure reject stream of the seawater reverse-osmosis plant and transferring this energy to low-pressure feed water with an efficiency of over 98 percent. Because the PX device itself consumes no electrical power and recycles otherwise lost energy in the form of pressure, the overall energy consumption of the process is drastically reduced. As part of the agreement, Energy Recovery will provide 144 of its PX Pressure Exchanger Q300 units to the plant. When the Carlsbad plant comes online in 2016, it will provide the region with 50 million gallons of water per day to serve 112,000 households.

JPMorgan Accused of Manipulating Electricity Prices

[Associated Press, July 30] Washington, D.C. – U.S. energy regulators are accusing JPMorgan Chase & Co. of manipulating electricity prices in California and the Midwest in 2010 and 2011. The Federal Energy Regulatory Commission said in an enforcement notice Monday that the bank used improper bidding strategies to squeeze excessive payments from the agencies that run the power grids in California and the Midwest. JPMorgan has reportedly been in negotiations with the regulator to reach a settlement over the allegations. The agency recently levied a $453 million fine on Barclays, Britain's second-largest bank, saying it manipulated electricity prices in California and other Western states. Barclays is disputing the allegations. The notice could be a prelude to a settlement with New York-based JPMorgan, which is the largest U.S. bank. JPMorgan spokesman Brian Marchiony declined to comment. FERC's enforcement staff said its investigation had found improper trading practices were used at the company's Houston-based subsidiary, JPMorgan Ventures Energy Corp.

Kinder Morgan Coal Terminal Expansion Raises Concerns

[Houston Business Journal, Aug. 5] Kinder Morgan Energy Partners LP's (NYSE: KMP) plans for its new coal business unit are worrying some local environmentalists, the Houston Chronicle reports. Houston-based Kinder Morgan previously revealed in June that it formed Kinder Morgan Resources LLC, a division that invests in coal and other mineral reserve properties and infrastructure. At the time of the announcement, the company said it was planning to invest more than $450 million in coal terminal expansion projects. Now, the Chronicle reports that local environmentalists are concerned about how Kinder Morgan's coal terminal expansions specifically at the Houston Ship Channel could affect air quality. In addition to Kinder Morgan's coal terminal expansion projects, other companies have proposed building coal shipping terminals along the Gulf Coast. Although there is not a strong demand for coal in the U.S. because of the availability of cheap natural gas, the Chronicle reports that countries in Asia and Europe still have strong demands for U.S. coal.

New Geostellar Solar Energy Index Reveals 'Solarcoaster' Effect – Annual Yield from Residential Solar Up and Down Across U.S.

Rising incentives outweigh intense sunshine and high utility bills for surprising results; solar builds wealth for most in nation faster than stocks, bonds or money in the bank

[Business Wire, July 31] WASHINGTON – Connecticut, New York and Massachusetts now outrank California, Arizona and New Mexico in the amount of money each ray of sunlight can generate for homeowners, according to the Geostellar Solar Index, a new scientific and economic analysis of Americans' savings through rooftop solar. The new quarterly index, released today by Geostellar, shows the Northeast and Mid-Atlantic states offer the highest Internal Rate of Return on residential solar energy, an economic analysis that measures and compares the profitability of investments, with profits as high as 24 percent per year over the 25-year life of the solar array. By comparison, the S&P 500 has shown an 9.9 percent Compounded Annual Growth Rate over the last 50 years, 30-year U.S. Treasuries have a current yield of 3.7 percent, and five-year certificates of deposit (CDs) typically return just 0.75 percent annually. Surprisingly, California, Arizona and New Jersey, 2012's top three solar states by installed capacity, are not among the top five states in the index. Tax credits and other incentives in New York and Connecticut have helped propel those states toward the top of the Geostellar Solar Index, which is calculated using sophisticated economics, energy and environmental factors to rank all 50 states and the District of Columbia, and more than 3,000 counties nationwide, in order of profitability for residential solar installments. Conversely, only Mississippi residents would pay more for solar energy than they would for the conventional electricity provided by the power grid, according to the index. The index criteria includes a detailed analysis of individual rooftops and their solar intensity, county-by-county tax credits, rebates, renewable energy credits and other incentives, local utility rates, installed costs of solar, and other variables.

Sacramento Office Park Retrofits with PACE Financing, Reduces Energy 27%

[Energy Manager Today, July 31] Clean Energy Sacramento launched the largest Property Assessed Clean Energy (PACE) project in the country, according to the Environmental Defense Fund. Sacramento's Metro Center Corporate Park will take advantage of $3.16 million in PACE financing to make energy efficiency upgrades, including replacement of rooftop units with high efficiency equipment and installation of a Metasys building management system from Johnson Controls to control the mechanical equipment and interior and exterior lighting. The retrofit will enable Metro Center to apply for LEED certification. Metro Center, managed by Colliers International, is comprised of four buildings, totaling about 250,000 square feet. The complex is owned by Seattle-based real estate investment firm Metzler Real Estate. The energy efficiency upgrades will reduce Metzler's annual utility costs by $140,000, a 27 percent decrease, and Metzler will incur no upfront capital costs.

UC San Diego Earns $7M in Utility Energy-Efficiency Incentives

[Fierce Energy, July 30] San Diego Gas & Electric's (SDG&E) energy-efficiency projects have paid off for University of California - San Diego, who received a $7.2 million check from the utility. The $7.2 million represents energy-efficiency incentives earned through implementation of 30 energy-efficiency projects from 2010 ($330,000), 2011 ($2.5 million) and 2012 ($4.4 million). Over the three-year period, UC San Diego saved more than 21 million kWh, 2.1 million therms and reduced demand by more than 2 MW. UC San Diego and SDG&E are partners through the University of California/California State University/Investor Owned Utility Energy Efficiency Partnership program (UC/CSU/IOU Energy Efficiency Partnership) -- a statewide program that includes the 33 UC and CSU campuses served by the four California IOUs.

ARIZONA STATE INCENTIVES/POLICIES

ARIZONA COMMERCE AUTHORITY (ACA)

- Angel Investment Tax Credit Program - The main objective of the Angel Investment program is to expand early stage investments in targeted Arizona small businesses. The program accomplishes this goal by providing tax credits to investors who make capital investment in small businesses certified by the Arizona Commerce Authority (ACA). To view the list of businesses that have been certified under this program please click here.

Income Tax Credit Provisions

An investor seeking an income tax credit must document to the ACA the investment was made in either a qualified rural or bioscience company or any other qualified small business. For a qualified bioscience or rural company, the tax credit may total up to 35% of the investment amount over three years; for any other qualified business, the tax credit may total up to 30% over three years. If the tax credits exceed the investor's income tax liability, any unused tax credit amount may be carried forward for up to three taxable years as long as the investor timely claims the credits with Revenue.

The ACA may authorize up to $20 million in tax credits to qualified investors beginning July 1, 2006 through June 30, 2016. The tax credits will be authorized on a first come, first served basis, which is established by the date and time the investor files an application with the ACA. Download the Angel Tax Credit Allocation Table Angel Tax Credit Allocation Table to view the remaining amount of tax credits available. For more detailed information please see below or direct questions to the Program Manager.

- Arizona Innovation Accelerator Fund - The Arizona Innovation Accelerator Fund Program is an $18.2 million loan participation program funded through the U.S. Department of Treasury's SSBCI and managed by the Arizona Commerce Authority. The goal of this program is to stimulate financing to small businesses and manufacturers, in collaboration with private finance partners, to foster business expansion and job creation in Arizona.

- Arizona Innovation Challenge - The Arizona Innovation Challenge is an investment in the minds of talented entrepreneurs in Arizona and around the world. The ACA will award $1.5 million to the most promising technology ventures that participate in the Challenge (awards may range from $100,000 to $250,000).

- AZ Fast Grant - Technology Commercialization Assistance - ***Next round of grants opening in mid November. This*** competitive grant enables Arizona-based technology companies to initiate the commercialization process. The grant will pay up to $7,500 to provide one or more of the following professional consulting services:
  - An expert review of the technology under development to determine if it already exists, is a good candidate for intellectual property protection and is likely to find an attractive market.
  - A commercialization feasibility study to identify showstoppers to commercialization before resources are spent commercializing a technology that is unlikely to succeed.
  - Other commercialization assistance such as training or preparation for the submission of a federal SBIR/STTR grant application or another acceptable means of technology commercialization.

- AZ Step Grant - Grant funding from the U.S. Small Business Administration (SBA) with matching funds contributed by the Arizona Commerce Authority (ACA) offering a number of services and tools to Arizona small businesses as they go global for the first time with sales or enter new, international markets.

- Commercial/Industrial Solar Energy Tax Credit Program - The primary goal of the Commercial/Industrial Solar Energy Tax Credit Program is to stimulate the production and use of solar energy in commercial and industrial applications by subsidizing the initial cost of solar energy devices. The program achieves this goal by providing an Arizona income tax credit for the installation of solar energy devices in Arizona business facilities. For more detailed information please see below or direct questions to the Program Manager.

- Healthy Forest - Harvesters, initial processors and transporters of small diameter timber, may receive: Transaction Privilege Tax Exemptions, Use Tax Exemption and New Job Income Tax Credits.

- Job Training Program offers job specific reimbursable grants for employers creating new jobs or increasing the skill and wage level of their current employees. Deadline: Year Round

- Renewable Energy Tax Incentive Program offers a refundable income tax credit and property tax

reduction to companies in solar, wind, geothermal and other renewable energy industries who are expanding or locating a manufacturing or headquarters operation in Arizona. The tax credit is up to 10% of the total qualified investment amount and the property tax benefit can reduce a company's property taxes by up to 75%. Deadline: Year Round

- Research and Development Tax Credit is an Arizona income tax credit for increased research and development activities conducted in this state. Starting in 2010, a qualifying company may be eligible to claim a partial refund of its current year excess R&D credit. Applicants may apply at the end of their tax year but prior to filing a tax return with Revenue.

- Quality Jobs Tax Credit Program - Beginning July 1, 2011, this new program provides Arizona income tax credits for companies creating new jobs and investing in Arizona. The credit is valued at up to $9,000 over a 3-year period per each new employee and offers a 5-year carry forward provision for any unused tax credits. Eligibility qualifications are different for rural and metro areas.

- Bonds Administered by the Arizona Commerce Authority.

- Federal Programs

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- Pollution Control Tax Credit - Provides a 10 percent income tax credit on the purchase price of real or personal property used to control or prevent pollution.

- Renewable Energy Production Tax Credit - An income tax credit awarded to utility-scale generation systems based on the amount of electricity produced annually for a 10-year period using solar or wind energy. Questions can be directed to Georganna Meyer (602-716-6927) or Elaine Smith (602-716-6924).

- **Sales Tax Exemption for Machinery and Equipment** - Exemptions are available for:
    1. Machinery or equipment used directly in manufacturing, see ARS 42-5159(B)(1).
    2. Machinery, equipment or transmission lines used directly in producing or transmitting electrical power, but not including distribution, see ARS 42-5159(B)(4).
    3. Machinery or equipment used in research and development, see ARS 42-5159(B)(14).

  Questions can be directed to Christie Comanita (602-716-6791).

- Solar Liquid Fuel Tax Credit - Income tax credits are available for research and development, production and delivery system costs associated with solar liquid fuel. Questions can be directed to Georganna Meyer (602-716-6927) or Elaine Smith (602-716-6924).

- Database of State Incentives for Renewables and Efficiency (DSIRE)
    - Arizona Incentives/Policies
    - Federal Incentives/Policies
    - Solar Policy News - DSIRE provides summaries of current solar policy developments and an archive of past solar policy developments. Current solar news appears below the news archive, which is searchable by several criteria.

GRANTS

The following solicitations are now available:
(Click on title to view solicitation)

- U.S. Dept. of Agriculture - Rural Development Grant Assistance
- Solar, Heliospheric, and INterplanetary Environment – Response due August 21, 2013
- Concentrating Solar Power: Efficiently Leveraging Equilibrium Mechanisms for Engineering New Thermochemical Storage (CSP: ELEMENTS) - Response due August 21, 2013

- Clean Energy Manufacturing Innovation Institute- Response due August, 29, 2013
- SBIR/STTR FY 2013 Phase II Release 3 – Response due September 4, 2013
- Advanced Manufacturing Technology Consortia (AMTech) Program – Optional Pre-applications should be received no later than Friday, September 6, 2013. Full applications must be received no later than 11:59 p.m. Eastern Time, Monday, October 21, 2013. Applications received after the deadline will not be reviewed or considered
- Water Sustainability and Climate - Responses due September 10,2013
- FY2013 Economic Development Assistance Programs – Response due quarterly; September 13, 2013
- Manufacturing Technology Acceleration Center (M-TAC) Pilot Projects – Response due by September 23, 2013.
- Bio-refinery Assistance Program – Response due October 31, 2013
- Energy, Power, and Adaptive Systems – Response due November 1, 2013
- Electronics, Photonics, and magnetic Devices - Response due November 1, 2013
- SunShot Initiative - Responses due November 20, 2014
- Solid Waste Management Grant - Response due December 31, 2013
- Environmental Sustainability - Response due February 20, 2014
- Energy for Sustainability - Response due February 20, 2014
- Environmental Health and Safety of Nanotechnology - Response due February 20, 2014
- Particulate and Multiphase Processes- Response due February 20, 2014
- Thermal Transport Processes - Response due February 20, 2014
- SunShot "Race to the Roof" Initiative - Registration due October 31,2014
- Repowering Assistance Program – Ongoing
- Rural Business Enterprise Grants– Ongoing
- Rural Business Opportunity Grants– Ongoing
- Renewable Energy RFPs - Solicitations for Renewable Energy Generation, Renewable Energy Certificates, and Green Power – Various Deadlines

ENERGY-RELATED EVENTS

2013

- Algal Culture Management and Strain Selection Workshop
  August 19-20, 2013 The University of Texas at Austin Austin, TX

- 2013 Tribal Lands and Environment Forum
  August 19-22, 2013 Santa Ana Pueblo, NM

- Waste Conversion Technology Conference & Trade Show,
  September 15-17, 2013 San Diego, CA

- NASEO 2013 Annual Meeting
  September 15-18 Denver, CO

- 2013 SolarPACES
  September 17-20, 2013 Las Vegas, NV

- **NEW!** Energy Environment & Building Conference
  September 24-26, 2013 Phoenix, AZ

- GEA Geothermal Energy Expo 2013
  September 29-October 2 Las Vegas, NV

- **NEW!** Green Fleet Conference & Expo
  October 1-2 Phoenix, AZ

- **NEW!** Arizona Governor's Economic Development Conference
  October 2-4 Flagstaff, AZ

- Solar Decathlon 2013
  Oct. 3-13, 2013 Irvine, CA

- IGSHPA Conference & Expo
  October 9-10, 2013 Las Vegas, NV

- **NEW!** Solar Power International
  October 21-24 Chicago, IL

- **NEW!** Border Energy Forum XX
  November 6-9 San Antonio, TX

- AWEA Wind Energy Fall Symposium
  November 6-8 Colorado Springs, CO

- GreenBuild International Conference and Expo
  November 20-22 Philadelphia, PA

- Ecobuild America 2013
  December 9-13 Washington, D.C.

2014

- **NEW!** Energy, Utility & Environment Conference
  February 3-5, 2014 Phoenix, AZ

- Green Biz Forum 2014
  February 18-20, 2014 Phoenix, AZ

- Green Building Lecture Series
  Granite Reef Senior Center Scottsdale, AZ